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EXAMINER	
PAN, JOSEPH T	

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/006,481	STONE ET AL.	
	Examiner	Art Unit	
	Joseph Pan	2135	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 July 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16,20-36,38-54,67-70 and 73-125* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16,20-36,38-54,67-70 and 73-125* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 December 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *5/9/06&10/21/02&*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's response filed on July 6, 2006 has been carefully considered. Claims 1-16, 20-36, 38-54, 67-70, 73-125 are pending in the present application. Claims 1-16, 20-35, 38-54, 70, 73-95, 97-108, 110-124 have been amended. Claims 17-19, 37, 55-66, 71-72 have been canceled.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 36, 67-69 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Referring to claim 36:

Claim 36 recites "A signal bearing at least one security key and the identifying data generated by the apparatus according to claim 32." Claims that recite nothing but the physical characteristics of a form of energy, such as a frequency, voltage, or the strength of a magnetic field, define energy or magnetism, per se, and as such are nonstatutory natural phenomena. O'Reilly, 56 U.S. (15 How.) at 112-14. Moreover, it does not appear that a claim reciting a signal encoded with functional descriptive material falls within any of the categories of patentable subject matter set forth in § 101. A claimed signal is clearly not a "process" under § 101 because it is not a series of steps. Therefore, claim 36 recites non-statutory subject matter.

Referring to claim 67:

Claim 67 recites "A computer readable signal comprising watermark removal data including a key and an invertible algorithm for configuring for configuring a removal algorithm, the watermark being perceptible and reversible, the removal data identifying the invertible algorithm, the perceptible watermark being applied to the material as part of a compression of the material, the invertible algorithm providing a perceivable impairment to the material, wherein a computer processes the signal so as to access information in the signal." Claims that recite nothing but the physical characteristics of a form of energy, such as a frequency, voltage, or the strength of a magnetic field, define energy or magnetism, per se, and as such are nonstatutory natural phenomena. O'Reilly, 56 U.S. (15 How.) at 112-14. Moreover, it does not appear that a claim reciting a signal encoded with functional descriptive material falls within any of the categories of patentable subject matter set forth in § 101. A claimed signal is clearly not a "process" under § 101 because it is not a series of steps. Therefore, claim 67 recites non-statutory subject matter.

Referring to claim 68-69:

Claims 68-69 depend on claim 67, therefore they are rejected with the same rationale applied against claim 67 above.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 97-109, 118-124 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshiura et al. (U.S. Patent No. 6,131,162) in view of Musgrave (U.S. Patent No. 6,208,746).

Referring to claims 97, 103, 109:

i. Yoshiura et al. teach:

A method of watermarking material and transferring the watermarked material in a system, the method comprising the steps of:

Using the first processor to apply a perceptible watermark to material in accordance with an invertible algorithm, the perceptible watermark being applied to the material as part of a compression of the material, the invertible algorithm providing a perceivable impairment to the material (see figure 21, element 2705 'embed a watermark' of Yoshiura et al.);

Using the communication network to transfer the watermarked material from the first processor to the second processor (see figure 19, element 11107 'send the mark' of Yoshiura et al.);

Transferring to the second processor watermark removal data (see column 28, lines 29-45 of Yoshiura et al.);

Using the second processor to remove the watermark using the removal data (see figure 22, element 2906 'extract the watermark'; and column 28, lines 29-45 of Yoshiura et al.).

However, Yoshiura et al. do not specifically mention applying a perceptible watermark to the material, in accordance with an invertible algorithm, the perceptible watermark being applied to the material as part of a compression of the material, the invertible algorithm providing a perceivable impairment to the material.

ii. Musgrave teaches a biometric watermark system wherein Musgrave discloses applying a perceptible watermark to the material (see column 4, lines 66-67; and column 5, lines 1-10 of Musgrave), in accordance with an invertible algorithm (see column 3, lines 50-60 of Musgrave), the perceptible watermark being applied to the material as part of a compression of the material (see column 3, lines 40-

49 of Musgrave), the invertible algorithm providing a perceivable impairment to the material (see column 4, lines 66-67; and column 5, lines 1-10 of Musgrave).

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Musgrave into the system of Yoshiura et al. to apply a perceptible watermark to the material, in accordance with an invertible algorithm, the perceptible watermark being applied to the material as part of a compression of the material, the invertible algorithm providing a perceivable impairment to the material.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Musgrave into the system of Yoshiura et al. to apply a perceptible watermark to the material, in accordance with an invertible algorithm, the perceptible watermark being applied to the material as part of a compression of the material, the invertible algorithm providing a perceivable impairment to the material, because Musgrave's teaching not only protects licensing and royalty payments associated with information, such as software and music, but also ensures that the products are delivered to and used only by the individual authorized to receive and use the information (see column 5, lines 14-18 of Musgrave).

Referring to claim 98:

Yoshiura et al. and Musgrave teach the claimed subject matter: a method for watermarking and transferring watermarked material (see claim 97 above). Musgrave further discloses a communication network in the system (see figure 1, element 18 of Musgrave).

Referring to claims 99-100:

Yoshiura et al. and Musgrave teach the claimed subject matter: a method for watermarking and transferring watermarked material (see claim 97 above). Musgrave further discloses that end-to-end electronic transactions are provided with secure authentication and protection from fraud and unauthorized use, such as by theft (see column 4, lines 44-47 of Musgrave).

Referring to claims 101-102:

Yoshiura et al. and Musgrave teach the claimed subject matter: a method for watermarking and transferring watermarked material (see claim 110 above). Yoshiura et al. further disclose a system wherein all the processors are linked by a network (see e.g. figure 1, elements 100, 200, 10 of Yoshiura et al.).

Referring to claims 104-107, 121-124:

Yoshiura et al. and Musgrave teach the claimed subject matter: a method for watermarking and transferring watermarked material (see claim 97 above). Musgrave further discloses the material could be video, audio/visual, audio or data (see column 3, lines 44-49 of Musgrave).

Referring to claim 108:

Yoshiura et al. and Musgrave teach the claimed subject matter: a system for watermarking (see claim 103 above). Musgrave further discloses a system comprising the sever, and the first and the second processors (see figure 1, elements 16, 26, 30 of Musgrave).

Referring to claims 118-119:

Yoshiura et al. and Musgrave teach the claimed subject matter: a method for watermarking and transferring watermarked material (see claim 110 above). Musgrave further discloses that end-to-end electronic transactions are provided with secure authentication and protection from fraud and unauthorized use, such as by theft (see column 4, lines 44-47 of Musgrave).

Referring to claim 120:

Yoshiura et al. and Musgrave teach the claimed subject matter: a system for watermarking (see claim 103 above). Musgrave further discloses a system comprising a transaction server, the first and the second processors (see figure 1, elements 16, 26, 30 of Musgrave).

5. Claims 1-16, 20-25, 29-30, 53, 73-96 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshiura et al. (U.S. Patent No. 6,131,162) in view of

Musgrave (U.S. Patent No. 6,208,746 B1), and further in view of Milsted et al. (U.S. Patent No. 6,345,256 B1).

Referring to claims 1, 20, 73:

i. Yoshiura et al. teach:

A method of watermarking and transferring watermarked material in a system comprising a server, first and second clients (see figure 14, elements 1120, 1110, 1100 of Yoshiura et al.), a apparatus for applying a watermark to the material (see column 9, lines 25-27 of Yoshiura et al.) and a apparatus for removing the watermark (see column 9, lines 32-34 of Yoshiura et al.), the method comprising the steps of:

Transferring data from the server to the apparatus for creating watermark, the creating data including data defining an invertible algorithm and data for creating at least one security key associated with the algorithm (see column 6, lines 9-19 of Yoshiura et al.), and data for creating a material identifier (see column 3, lines 18-22 of Yoshiura et al.);

Using the apparatus to apply a material identifier to the material and applying a watermark to the material (see column 3, lines 13-15 of Yoshiura et al.);

Transferring the material identifier from the client to the server (see figure 14, element 1611 of Yoshiura et al.);

Transferring the watermarked material (see column 23, lines 8-14 of Yoshiura et al.);

Deriving the material identifier from the watermarked material (see column 23, lines 16-20 of Yoshiura et al.);

Transferring the material identifier to the server (see column 23, lines 16-20 of Yoshiura et al.);

Subject to predetermined conditions being satisfied, transferring the watermark removal data to the watermark removal apparatus to remove the watermark from the material (see column 28, lines 29-45 of Yoshiura et al.).

However, Yoshiura et al. do not specifically mention applying a perceptible watermark to the material, in accordance with an invertible algorithm, the perceptible watermark being applied to the material as part of a compression of the material, the invertible algorithm providing a perceivable impairment to the material.

Also, Yoshiura et al. do not specifically mention the security key which is associated with the invertible algorithm, neither do Yoshiura et al. specifically mention the material identifier.

ii. Musgrave teaches a biometric watermark system wherein Musgrave discloses applying a perceptible watermark to the material (see column 4, lines 66-67; and column 5, lines 1-10 of Musgrave), in accordance with an invertible algorithm (see column 3, lines 50-60 of Musgrave), the perceptible watermark being applied to the material as part of a compression of the material (see column 3, lines 40-49 of Musgrave), the invertible algorithm providing a perceivable impairment to the material (see column 4, lines 66-67; and column 5, lines 1-10 of Musgrave).

Milsted et al. disclose a method to package digital content for electronic distribution using the identity of the source content, wherein Milsted et al. disclose the security key and the associated invertible algorithm (see column 24, lines 16-20 of Milsted et al.), and the material identifier (see abstract of Milsted et al.).

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Musgrave into the system of Yoshiura et al. to apply a perceptible watermark to the material, in accordance with an invertible algorithm, the perceptible watermark being applied to the material as part of a compression of the material, the invertible algorithm providing a perceivable impairment to the material.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Milsted et al. into the system of Yoshiura et al. to use a security key which is associated with the invertible algorithm, and use the material identifier.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Musgrave into the system of Yoshiura et al. to apply a

perceptible watermark to the material, in accordance with an invertible algorithm, the perceptible watermark being applied to the material as part of a compression of the material, the invertible algorithm providing a perceivable impairment to the material, because Musgrave's teaching not only protects licensing and royalty payments associated with information, such as software and music, but also ensures that the products are delivered to and used only by the individual authorized to receive and use the information (see column 5, lines 14-18 of Musgrave).

The ordinary skilled person would have been motivated to have applied the teaching of Milsted et al. into the system of Yoshiura et al. to use a security key which is associated with the invertible algorithm, because the security key can be used to enhance the security, so that only the End-User Player Application 195 that is knowledgeable of the embedding algorithm and the associated scrambling key is able to read or modify the embedded data (see column 24, lines 16-20 of Milsted et al.).

The ordinary skilled person would have been motivated to have applied the teaching of Milsted et al. into the system of Yoshiura et al. to use the material identifier, because the material identifier facilitates identifying a material (see abstract of Milsted et al.).

Referring to claim 2:

Yoshiura et al., Musgrave and Milsted et al. teach the claimed subject matter: a method of watermarking and transferring watermarked material (see claim 1 above). Yoshiura et al. further disclose that the data is compressed (see column 3, lines 2-4 of Yoshiura et al.).

Referring to claims 3-4:

Yoshiura et al., Musgrave and Milsted et al. teach the claimed subject matter: a method of watermarking and transferring watermarked material (see claim 1 above). Yoshiura et al. further disclose that the removal data for the watermark can be provided by the server (see column 28, lines 29-45 of Yoshiura et al.).

Referring to claims 5-7, 9:

Yoshiura et al., Musgrave and Milsted et al. teach the claimed subject matter: a method of watermarking and transferring watermarked material (see claim 1

above). Yoshiura et al. further disclose using a data carrier to carry out the watermarking functionalities (see column 14, lines 55-61 of Yoshiura et al.).

Referring to claim 8:

Yoshiura et al., Musgrave and Milsted et al. teach the claimed subject matter: a method of watermarking and transferring watermarked material (see claim 1 above). Milsted et al. disclose the metadata (see column 60, lines 47 of Milsted et al.).

Referring to claims 10-12:

Yoshiura et al., Musgrave and Milsted et al. teach the claimed subject matter: a method of watermarking and transferring watermarked material (see claim 1 above). Yoshiura et al. further disclose that the system may be used in seller and buyer mode in electronic commerce wherein conditions of sale apply (see column 15, lines 26-31 of Yoshiura et al.).

Referring to claim 13:

Yoshiura et al., Musgrave and Milsted et al. teach the claimed subject matter: a method of watermarking and transferring watermarked material (see claim 1 above). Yoshiura et al. further disclose using a recording medium (see column 9, lines 48-50 of Yoshiura et al.).

Referring to claim 14:

i. Yoshiura et al. teach:

A data carrier wherein data is stored for creating a watermark, so that upon receiving an encrypted content, the data carrier will embed a digital watermark to the content (see column 14, lines 55-61 of Yoshiura et al.).

However, Yoshiura et al. do not specifically mention applying a perceptible watermark to the material, in accordance with an invertible algorithm, the perceptible watermark being applied to the material as part of a compression of the material, the invertible algorithm providing a perceivable impairment to the material.

Also, Yoshiura et al. do not specifically mention the security key which is associated with the invertible algorithm, neither do Yoshiura et al. specifically mention the material identifier.

ii. Musgrave teaches a biometric watermark system wherein Musgrave discloses applying a perceptible watermark to the material (see column 4, lines 66-67; and column 5, lines 1-10 of Musgrave), in accordance with an invertible algorithm (see column 3, lines 50-60 of Musgrave), the perceptible watermark being applied to the material as part of a compression of the material (see column 3, lines 40-49 of Musgrave), the invertible algorithm providing a perceivable impairment to the material (see column 4, lines 66-67; and column 5, lines 1-10 of Musgrave).

Milsted et al. disclose a method to package digital content for electronic distribution using the identity of the source content, wherein Milsted et al. disclose the security key and the associated invertible algorithm (see column 24, lines 16-20 of Milsted et al.), and the material identifier (see abstract of Milsted et al.).

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Musgrave into the system of Yoshiura et al. to apply a perceptible watermark to the material, in accordance with an invertible algorithm, the perceptible watermark being applied to the material as part of a compression of the material, the invertible algorithm providing a perceivable impairment to the material, and use the material identifier.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Milsted et al. into the system of Yoshiura et al. to use a security key which is associated with the invertible algorithm.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Musgrave into the system of Yoshiura et al. to apply a perceptible watermark to the material, in accordance with an invertible algorithm, the perceptible watermark being applied to the material as part of a compression of the material, the invertible algorithm providing a perceivable impairment to the material, because Musgrave's teaching not only protects licensing and royalty payments associated with information, such as software and music, but also ensures that the products are delivered to and used only by the individual authorized to receive and use the information (see column 5, lines 14-18 of Musgrave).

The ordinary skilled person would have been motivated to have applied the teaching of Milsted et al. into the system of Yoshiura et al. to use a security key which is associated with the invertible algorithm, because the security key can be used to enhance the security, so that only the End-User Player Application 195 that is knowledgeable of the embedding algorithm and the associated scrambling key is able to read or modify the embedded data (see column 24, lines 16-20 of Milsted et al.).

The ordinary skilled person would have been motivated to have applied the teaching of Milsted et al. into the system of Yoshiura et al. to use the material identifier, because the material identifier facilitates identifying a material (see abstract of Milsted et al.).

Referring to claims 15-16:

Yoshiura et al., Musgrave and Milsted et al. teach the claimed subject matter: using a data carrier to create the watermark (see claim 14 above). Yoshiura et al. further disclose that the data carrier is a smart card (see column 14, lines 55-61 of Yoshiura et al.).

Referring to claims 21-24:

Yoshiura et al., Musgrave and Milsted et al. teach the claimed subject matter: a system of watermarking and transferring watermarked material (see claim 20 above). Yoshiura et al. further disclose that the content may contain different types of data, such as text data, drawing data, audio data, or video data (see column 11, lines 45-48 of Yoshiura et al.).

Referring to claim 25:

Yoshiura et al., Musgrave and Milsted et al. teach the claimed subject matter: a system of watermarking and transferring watermarked material (see claim 20 above). Yoshiura et al. further disclose:

An information material processing apparatus operable to receive signals representative of information material, and to adapt said signals to the effect of introducing a reversible modification material in accordance with a modification key (see figure 2, elements 211, 216, 220 of Yoshiura et al.);

A data generation processor operable to generate data identifying said information material (see column 3, lines 18-22 of Yoshiura et al.);

A recording apparatus operable to record said adapted signals (see column 9, lines 48-50 of Yoshiura et al.);

A data carrier used by the data processor to store watermarking data (see column 14, lines 55-61 of Yoshiura et al.).

Musgrave teaches a biometric watermark system wherein Musgrave discloses applying a perceptible watermark to the material (see column 4, lines 66-67; and column 5, lines 1-10 of Musgrave), in accordance with an invertible algorithm (see column 3, lines 50-60 of Musgrave), the perceptible watermark being applied to the material as part of a compression of the material (see column 3, lines 40-49 of Musgrave), the invertible algorithm providing a perceivable impairment to the material (see column 4, lines 66-67; and column 5, lines 1-10 of Musgrave).

Milsted et al. disclose a method to package digital content for electronic distribution using the identity of the source content, wherein Milsted et al. disclose the modification key and the associated invertible algorithm (see column 24, lines 16-20 of Milsted et al.), and the material identifier (see abstract of Milsted et al.).

Referring to claims 29:

Yoshiura et al., Musgrave and Milsted et al. teach the claimed subject matter: an apparatus for watermarking (see claim 20 above). Milsted et al. further disclose creating a unique material identifier (see abstract of Milsted et al.).

Referring to claims 30:

Yoshiura et al., Musgrave and Milsted et al. teach the claimed subject matter: an apparatus for watermarking (see claim 20 above). Milsted et al. further disclose the signal (see column 24, lines 23-27 of Wilsted et al.).

Referring to claim 53:

i. Musgrave and Milsted et al. teaches the claimed subject matter: a method for watermarking and transferring watermarked material (see claim 47 above). However, they do not specifically mention linking to a financial institution to monitor the transfer of money.

ii. Yoshiura et at. disclose a system wherein vendors include in their web pages the image data, such as the logos of credit card companies, to allow the user to instantly select one of various payment methods (see column 4, lines 30-33 of Yoshiura et al.).

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Yoshiura et al. into the system of Musgrave and Milsted et al. to link to a financial institution to monitor the transfer of money.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Yoshiura et al. into the system of Musgrave and Milsted et al. to link to a financial institution to monitor the transfer of money, because in the electronic commerce system, providers not only need to provide user with the information on goods, but also settles accounts. Many settlement methods, including bank settlement, credit card settlements, or electronic money settlements, are used (see column 4, lines 22-29 of Yoshiura et al.).

Referring to claims 74, 91, 96:

i. Yoshiura et al. teach:

A method of watermarking and transferring watermarked material in a system comprising a server, first and second clients (see figure 14, elements 1120, 1100, 1110 of Yoshiura et al.), the method comprising the steps of:

Creating a watermark and a material identifier (see column 3, lines 18-22 of Yoshiura et al.);

Applying the watermark and the material identifier to the material (see figure 14, element 1604; and column 3, lines 13-15 of Yoshiura et al.);

Storing, in the transaction server, the material identifier and the removal data (see figure 14, element 1123; and column 28, lines 29-45 of Yoshiura et al.);

Transferring the watermarked material to the second client (see figure 14, element 1609 of Yoshiura et al.);

Deriving the material identifier associated with the material (see figure 14, element 1611 of Yoshiura et al.);

Transferring the derived identifier from the second client to the transaction server (see figure 14, element 1611 of Yoshiura et al.);

Removing the watermark subject to predetermined conditions being satisfied (see column 14, lines 20-25 of Yoshiura et al.).

However, Yoshiura et al. do not specifically mention applying a perceptible watermark to the material, in accordance with an invertible algorithm, the perceptible watermark being applied to the material as part of a compression of the material, the invertible algorithm providing a perceivable impairment to the material.

Also, Yoshiura et al. do not specifically mention the security key which is associated with the invertible algorithm, neither do Yoshiura et al. specifically mention the material identifier.

ii. Musgrave teaches a biometric watermark system wherein Musgrave discloses applying a perceptible watermark to the material (see column 4, lines 66-67; and column 5, lines 1-10 of Musgrave), in accordance with an invertible algorithm (see column 3, lines 50-60 of Musgrave), the perceptible watermark being applied to the material as part of a compression of the material (see column 3, lines 40-49 of Musgrave), the invertible algorithm providing a perceivable impairment to the material (see column 4, lines 66-67; and column 5, lines 1-10 of Musgrave).

Milsted et al. disclose a method to package digital content for electronic distribution using the identity of the source content, wherein Milsted et al. disclose the security key and the associated invertible algorithm (see column 24, lines 16-20 of Milsted et al.), and the material identifier (see abstract of Milsted et al.).

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Musgrave into the system of Yoshiura et al. to apply a perceptible watermark to the material, in accordance with an invertible algorithm, the perceptible watermark being applied to the material as part of a compression of the material, the invertible algorithm providing a perceivable impairment to the material.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Milsted et al. into the system of Yoshiura et al. to use a security key which is associated with the invertible algorithm, and use the material identifier.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Musgrave into the system of Yoshiura et al. to apply a perceptible watermark to the material, in accordance with an invertible algorithm, the perceptible watermark being applied to the material as part of a compression of the material, the invertible algorithm providing a perceivable impairment to the material, because Musgrave's teaching not only protects licensing and royalty payments associated with information, such as software and music, but also ensures that the products are delivered to and used only by the individual authorized to receive and use the information (see column 5, lines 14-18 of Musgrave).

The ordinary skilled person would have been motivated to have applied the teaching of Milsted et al. into the system of Yoshiura et al. to use a security key which is associated with the invertible algorithm, because the security key can be used to enhance the security, so that only the End-User Player Application 195 that is knowledgeable of the embedding algorithm and the associated scrambling key is able to read or modify the embedded data (see column 24, lines 16-20 of Milsted et al.).

The ordinary skilled person would have been motivated to have applied the teaching of Milsted et al. into the system of Yoshiura et al. to use the material identifier, because the material identifier facilitates identifying a material (see abstract of Milsted et al.).

Referring to claim 75:

Yoshiura et al. and Musgrave teach the claimed subject matter: a method for watermarking and transferring the watermarked material (see claim 74 above). Yoshiura et al. further disclose that the watermarked material is transferred to the second client via a communication channel (see column 23, lines 11-14 of Yoshiura et al.)

Referring to claim 76:

Yoshiura et al., Musgrave and Milsted et al. teach the claimed subject matter: a system of watermarking and transferring watermarked material (see claim 74 above). Milsted et al. further disclose the metadata (see column 60, lines 47 of Milsted et al.).

Referring to claims 77-78:

Yoshiura et al., Musgrave and Milsted et al. teach the claimed subject matter: a method of watermarking and transferring watermarked material (see claim 74 above). Yoshiura et al. further disclose that the system may be used in seller and buyer mode wherein conditions of sale apply (see column 15, lines 26-31 of Yoshiura et al.).

Referring to claim 79:

Yoshiura et al., Musgrave and Milsted et al. teach the claimed subject matter: a system of watermarking and transferring watermarked material (see claim 74 above). Milsted et al. further disclose the business rules (see column 12, lines 57 of Milsted et al.).

Referring to claim 80:

Yoshiura et al., Musgrave and Milsted et al. teach the claimed subject matter: a system of watermarking and transferring watermarked material (see claim 74 above). Milsted et al. further disclose that the statistics data are kept for the transaction (see column 8, lines 48 of Milsted et al.).

Referring to claims 81-84:

Yoshiura et al., Musgrave and Milsted et al. teach the claimed subject matter: a system of watermarking and transferring watermarked material (see claim 74 above). Milsted et al. further disclose that the file is used to store data (see column 23, lines 26-28 of Milsted et al.).

Referring to claim 85:

Yoshiura et al., Musgrave and Milsted et al. teach the claimed subject matter: a method for watermarking and transferring watermarked material (see claim 74 above). Milsted et al. further disclose using the fingerprint to secure data from unauthorized access (see column 17, lines 32-33 of Milsted et al.).

Referring to claims 86-87:

Yoshiura et al., Musgrave and Milsted et al. teach the claimed subject matter: a method for watermarking and transferring watermarked material (see claim 74 above). Milsted et al. further disclose transferring the data file to the recipient (see column 23, lines 26-28 of Milsted et al.).

Referring to claim 88:

Yoshiura et al., Musgrave and Milsted et al. teach the claimed subject matter: a method of watermarking and transferring watermarked material (see claim 74 above). Yoshiura et al. further disclose using a recording medium (see column 9, lines 48-50 of Yoshiura et al.).

Referring to claim 89:

Yoshiura et al., Musgrave and Milsted et al. teach the claimed subject matter: a method of watermarking and transferring watermarked material (see claim 74 above). Yoshiura et al. further disclose downloading web pages from the web page database (see column 20, lines 34-36 of Yoshiura et al.).

Referring to claim 90:

Yoshiura et al., Musgrave and Milsted et al. teach the claimed subject matter: a method of watermarking and transferring watermarked material (see claim 74 above). Yoshiura et al. further disclose that the first client (vendor) interacts with the transaction server (mark manager) to create the watermark (see figure 14, elements 1110, 1120 of Yoshiura et al.).

Referring to claims 92-95:

Yoshiura et al., Musgrave and Milsted et al. teach the claimed subject matter: a system of watermarking and transferring watermarked material (see claim 74 above). Yoshiura et al. further disclose that the content may contain different types of data, such as text data, drawing data, audio data, or video data (see column 11, lines 45-48 of Yoshiura et al.).

6. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshiura et al. (U.S. Patent No. 6,131,162) in view of Musgrave (U.S. Patent No.

6,208,746 B1), and further in view of Milsted et al. (U.S. Patent No. 6,345,256 B1), and further in view of Finkeistein et al. (U.S. Patent No. 5,185,733).

Referring to claim 26:

i. Yoshiura et al., Musgrave and Milsted et al. teach the claimed subject matter: a apparatus for watermarking and transferring (see claim 20 above). However, they do not specifically mention that the recording medium including capacity for ancillary data, and the recording medium.

ii. Finkeistein et al. disclose a system wherein the recording medium includes capacity for ancillary data (see column 7, lines 33-36 of Finkeistein et al.), and the linear recording medium (see column 1, lines 32-37 of Finkeistein et al.).

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Finkeistein et al. into the system of Yoshiura et al., Musgrave and Milsted et al. to use a recording medium with the capacity of ancillary data for the watermarked material, and use a linear recording medium.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Finseistein et al. into the system of Yoshiura et al., Musgrave and Milsted et al. to use the recording medium with the capacity for ancillary data, because it is well known in the recording art that the ancillary data for an area of interest used to enhance the analysis of the primary remotely sensed data (see phrase 'ancillary data' in AGI GIS dictionary).

The ordinary skilled person would have been motivated to have applied the teaching of Finseistein et al. into the system of Yoshiura et al., Musgrave and Milsted et al. to use a linear recoding meduim, because linear recording medium is popular and widely used in recording industry.

7. Claims 27-28, 31, 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshiura et al. (U.S. Patent No. 6,131,162) in view of Musgrave

(U.S. Patent No. 6,208,746 B1), and further in view of Milsted et al. (U.S. Patent No. 6,345,256 B1), and further in view of Gell (U.S. Patent No. 6,577,858).

Referring to claims 27-28:

i. Yoshiura et al., Musgrave and Milsted et al. teach the claimed subject matter: an apparatus for watermarking (see claim 20 above). However, they do not specifically mention that the data carrier is a hand insert-able smart card.

ii. Gell discloses a system wherein the system integrates all the functions of the customer accounting unit onto a hand insert-able smart card (see column 9, lines 66-67; and column 10, lines 1-4 of Gell).

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Gell into the system of Yoshiura et al., Musgrave and Milsted et al. to provide a hand insert-able smart card to store watermarking data.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Gell into the system of Yoshiura et al., Musgrave and Milsted et al. to provide a hand insert-able smart card to store watermarking data, because by storing watermarking data in a smart card, data storage becomes distributed. Also, this would provide convenience for the customer since the customer is more easily able to rely upon data which has been stored in the smart card (see column 3, lines 31-43 of Gell).

Referring to claims 31:

i. Yoshiura et al., Musgrave and Milsted et al. teach the claimed subject matter: an apparatus for watermarking (see claim 25 above). However, they do not specifically mention that the apparatus is a camera.

ii. Gell discloses a system wherein a video camera is utilized (see column 14, line 41 of Gell).

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Gell into the system of Yoshiura et al., Musgrave and Milsted et al. to utilize a camera to do watermarking.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Gell into the system of Yoshiura et al., Musgrave and Milsted et al. to utilize a camera to do watermarking, because the camera will send video signal to be applied with a watermark (see column 14, lines 55-58 of Gell).

Referring to claims 70:

i. Yoshiura et al. teach:

a method comprising the steps of: receiving watermarked material via the first channel (see figure 2, element 213 of Yoshiura et al.), and receiving data via a second channel (see figure 2, element 211 of Yoshiura et at.).

However, Yoshiura et al. do not specifically mention applying a perceptible watermark to the material, in accordance with an invertible algorithm. Neither do Yoshiura specifically mention the first and the channels.

ii. Musgrave teaches a biometric watermark system wherein Musgrave discloses applying a perceptible watermark to the material (see column 4, lines 66-67; and column 5, lines 1-10 of Musgrave), in accordance with an invertible algorithm (see column 3, lines 50-60 of Musgrave).

On the other hand, Gell discloses a account system in a computer network wherein the monitor apparatus is arranged to receive and scan all the wavelength channels on the network (see column 13, lines 9-11 of Gell).

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Musgrave into the system of Yoshiura et al. to apply a perceptible watermark to the material, in accordance with an invertible algorithm.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Gell into the system of Yoshiura et al. to utilize multiple channels for communications.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Musgrave into the system of Yoshiura et al. to apply a perceptible watermark to the material, in accordance with an invertible algorithm, because Musgrave's teaching not only protects licensing and royalty payments

associated with information, such as software and music, but also ensures that the products are delivered to and used only by the individual authorized to receive and use the information (see column 5, lines 14-18 of Musgrave).

The ordinary skilled person would have been motivated to have applied the teaching of Gell into the system of Yoshiura et al. to utilize multiple channels for communications, because multiple channels can support multiple data communications, thus it's more efficient.

8. Claims 43-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Musgrave (U.S. Patent No. 6,208,746) in view of Milsted et al. (U.S. Patent No. 6,345,256), and further in view of Gell (U.S. Patent No. 6,577,858).

Referring to claims 43-45:

i. Musgrave and Milstead et al. teaches the claimed subject matter: a method for watermarking and transferring watermarked material (see claim 38 above). However, Musgrave does not specifically mention using a data carrier, such as a smart card, to store watermarking related data.

ii. Gell discloses a system wherein a smart card is used to integrate all the functions of the customer accounting unit.

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Gell into the system of Musgrave and Milsted et al. to use a smart card, to store watermarking related data.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Gell into the system of Musgrave and Milsted et al. to use a smart card to store watermarking related data, because by storing watermarking data in a smart card, data storage becomes distributed. Also, this would provide convenience for the customer since the customer is more easily able to rely upon data which has been stored in the smart card (see column 3, lines 31-43 of Gell).

9. Claims 32-36, 38-40, 46-52, 54, 110-117, 125 are rejected under 35 U.S.C. 103(a) as being unpatentable over Musgrave (U.S. Patent No. 6,208,746) in view of Milsted et al. (U.S. Patent No. 6,345,256).

Referring to claim 32:

i. Musgrave teaches:

An apparatus comprising:

A data reading processor operable to receive a data carrier via hand insertion by a user (see figure 1, element 16 'Data Provider' of Musgrave);

The data carrier configured to store data for creating a material identifier and data for creating a perceptible watermark, wherein the creating data includes data defining an invertible algorithm for applying a perceptible watermark to material, the invertible algorithm, when executed, provides a perceptible impairment to the material, and data for creating at least one security key associated with the algorithm [i.e., Musgrave teaches a biometric watermark system wherein Musgrave discloses applying a perceptible watermark to the material (see column 4, lines 66-67; and column 5, lines 1-10 of Musgrave), in accordance with an invertible algorithm (see column 3, lines 50-60 of Musgrave), the perceptible watermark being applied to the material as part of a compression of the material (see column 3, lines 40-49 of Musgrave), the invertible algorithm providing a perceivable impairment to the material (see column 4, lines 66-67; and column 5, lines 1-10 of Musgrave).]; and

A communications processor operable to communicate said at least one security key and a material identifier created from the data for creating a material identifier to a data processor (see figure 1, element 16 'Data Provider' of Musgrace).

However, Musgrace does not specifically mention the security key which is associated with the invertible algorithm, neither does Musgrace specifically mention the material identifier and the data carrier.

ii. Milsted et al. disclose a method to package digital content for electronic distribution using the identity of the source content, wherein Milsted et al.

disclose the security key and the associated invertible algorithm (see column 24, lines 16-20 of Milsted et al.), the material identifier (see abstract of Milsted et al.), and the data carrier (see column 52, lines 9-14 of Milsted et al.).

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Milsted et al. into the system of Musgrace to use a security key which is associated with the invertible algorithm, use the material identifier and a data carrier.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Milsted et al. into the system of Musgrace to use a security key which is associated with the invertible algorithm, because the security key can be used to enhance the security, so that only the End-User Player Application 195 that is knowledgeable of the embedding algorithm and the associated scrambling key is able to read or modify the embedded data (see column 24, lines 16-20 of Milsted et al.).

The ordinary skilled person would have been motivated to have applied the teaching of Milsted et al. into the system of Musgrave to use the material identifier, because the material identifier facilitates identifying a material (see abstract of Milsted et al.).

The ordinary skilled person would have been motivated to have applied the teaching of Milsted et al. into the system of Musgrave to use the data carrier, because the data carrier is removable and thus provides flexibility (see column 52, lines 9-14 of Milsted et al.).

Referring to claim 33:

Musgrave and Milsted et al. teach the claimed subject matter: an apparatus for watermarking (see claim 32 above). Milsted et al. further disclose the processor communicates with the database via a communication network (see column 1, lines 50-55 of Milsted et al.).

Referring to claim 34:

Musgrave and Milsted et al. teach the claimed subject matter: an apparatus for watermarking (see claim 32 above). Milsted et al. further disclose that the communication network is the Internet (see column 1, lines 50-55 of Milsted et al.).

Referring to claim 35:

Musgrave and Milsted et al. teach the claimed subject matter: an apparatus for watermarking (see claim 32 above). Milsted et al. further disclose the sale condition and price information (see column 14, lines 5-8; and column 62, lines 27-28 of Milsted et al.).

Referring to claim 36:

Musgrave and Milsted et al. teach the claimed subject matter: an apparatus for watermarking (see claim 32 above). Milsted et al. further disclose the signal (see column 24, lines 23-27 of Milsted et al.).

Referring to claim 38:

i. Musgrave teaches:

A method comprising the steps of:

Applying, using a watermarking apparatus, a removable watermark to material, and applying identifying data to the material to identify the watermarked material (see column 3, lines 12-16 of Musgrave);

Registering with a transaction server conditions for the removal of the watermark (see column 4, lines 48-56 of Musgrave);

Transferring the watermarked material to a watermark removal apparatus(see column 4, lines 48-56 of Musgrave);

Transferring the removal data to the removal apparatus to allow removal of the perceivable watermark if the transaction server indicates that predetermined conditions for removal are satisfied (see figure 1, elements 22, 24, 30 of Musgrave, wherein the removal data 'biometric data' is transferred from the scanner to the decoder when the predetermined conditions are satisfied), and remove the perceivable watermark from the watermarked material if the predetermined conditions for removal are satisfied (see column 4, lines 48-56 of Musgrave), wherein the watermark is applied using an invertible algorithm (see column 3, lines 50-60 of Musgrave), and the perceptible watermark being applied to the material as part of a compression of the material (see column 3, lines 44-49 of Musgrave), the invertible

algorithm providing a perceivable impairment to the material (see column 4, lines 66-67; and column 5, lines 1-10 of Musgrave)

However, Musgrace does not specifically mention the material identifier.

ii. Milsted et al. disclose a method to package digital content for electronic distribution using the identity of the source content, wherein Milsted et al. disclose the material identifier (see abstract of Milsted et al.).

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Milsted et al. into the system of Musgrace to use the material identifier.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Milsted et al. into the system of Musgrave to use the material identifier, because the material identifier facilitates identifying a material (see abstract of Milsted et al.).

Referring to claims 39-40:

Musgrave and Milsted et al. teach the claimed subject matter: a method for watermarking and transferring watermarked material (see claim 38 above). Musgrave further discloses that the method can be used in the electronic business such as the purchase of software, music, multimedia products, etc., and involves the conditions of sale and payments (see column 2, lines 55-58 of Musgrave).

Referring to claim 46:

i. Musgrave:

A system comprising:

a watermarking apparatus configured to apply a removable perceptible watermark to material the watermark being removable by using removal. data created during application of the watermark, and to apply identifying data to the material that identifies the watermarked material (see column 3, lines 50-60 of Musgrace);

a transaction server configured to register server conditions for removal of the watermark and identifying data that identifies the watermarked material (see figure 1, element 16 of Musgrace);

a watermark removal apparatus configured to receive the watermarked data (see figure 1, element 30 of Musgrace);

transfer the removal data to the removal apparatus if the transaction server indicates that predetermined conditions for removal are satisfied (see figure 1, elements 22, 24, 30 of Musgrace), wherein

the watermark is applied using an invertible algorithm, the removal data identifies the invertible algorithm, the perceptible watermark is applied to the material as part of a compression of the material, and the invertible algorithm provides a perceivable impairment to the material (see column 3, lines 44-60 of Musgrace).

However, Musgrace does not specifically mention the material identifier.

ii. Milsted et al. disclose a method to package digital content for electronic distribution using the identity of the source content, wherein Milsted et al. disclose the material identifier (see abstract of Milsted et al.).

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Milsted et al. into the system of Musgrace to use the material identifier.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Milsted et al. into the system of Musgrave to use the material identifier, because the material identifier facilitates identifying a material (see abstract of Milsted et al.).

Referring to claim 47:

i. Musgrave teaches:

A server arranged to:

Receive and store data identifying watermarked material, data enabling removal of the watermarks from the material, and data setting predetermined

conditions for the removal of watermarks (see column 3, lines 12-16; and column 5, lines 14-18 of Musgrave);

Receive identifying data identifying watermarked material from which a watermark is to be removed (see column 2, lines 52-53 of Musgrave);

Monitor whether the predetermined conditions are satisfied (see column 5, lines 14-18 of Musgrave);

If the predetermined conditions are satisfied, remove the perceivable watermark from the watermarked material (see column 5, lines 14-18 of Musgrave), wherein the watermark is applied using an invertible algorithm (see column 3, lines 50-60 of Musgrave), and the perceptible watermark being applied to the material as part of a compression of the material (see column 3, lines 44-49 of Musgrave), the invertible algorithm providing a perceivable impairment to the material (see column 4, lines 66-67; and column 5, lines 1-10 of Musgrave).

However, Musgrace does not specifically mention the material identifier.

ii. Milsted et al. disclose a method to package digital content for electronic distribution using the identity of the source content, wherein Milsted et al. disclose the material identifier (see abstract of Milsted et al.).

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Milsted et al. into the system of Musgrace to use the material identifier.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Milsted et al. into the system of Musgrave to use the material identifier, because the material identifier facilitates identifying a material (see abstract of Milsted et al.).

Referring to claim 48:

Musgrave and Milsted et al. teach the claimed subject matter: a method for watermarking and transferring watermarked material (see claim 47 above). Musgrave further discloses that the predetermined conditions are conditions of sale of the material (see column 5, lines 14-18 of Musgrave).

Referring to claims 49-50:

Musgrave and Milsted et al. the claimed subject matter: a method for watermarking and transferring watermarked material (see claim 47 above). Musgrave further discloses that the server interacts with the seller and the buyer of the watermarked material (see column 4, lines 48-56 of Musgrave).

Referring to claims 51-52:

Musgrave and Milsted et al. the claimed subject matter: a method for watermarking and transferring watermarked material (see claim 47 above). Musgrave further discloses that the conditions of sale includes paying for the material; and that the server monitors transfer of money from the buyer (see column 5, lines 14-18 of Musgrave).

Referring to claim 54:

Musgrave and Milsted et al. the claimed subject matter: a method for watermarking and transferring watermarked material (see claim 47 above). Milsted et al. discloses a system wherein template is used to describe the required and optional information for building the offer, order, and license SC (see column 31, lines 55-57 of Milsted et al.).

Referring to claims 110, 125:

i. Musgrave teaches:

A method of watermarking material and transferring the watermarked material in a system, the method comprising the steps of:

Using the first processor to create a perceptible watermark (see figure 1, element 26; and column 4, lines 66-67, column 5, lines 1-10 of Musgrave);

Using the first processor to associate the material identifier with the material and apply the perceptible watermark to the material (see figure 1, element 26; and column 4, lines 66-67, column 5, lines 1-10 of Musgrave), in accordance with an invertible algorithm (see column 3, lines 50-60 of Musgrave), the perceptible watermark being applied to the material as part of a compression of the material (see column 3, lines 40-49 of Musgrave), the invertible algorithm providing a perceivable impairment to the material (see column 4, lines 66-67; and column 5, lines 1-10 of Musgrave);

Storing the material identifier and data (see column 4, lines 48-51 of Musgrave).

Using the communication network to transfer the watermarked material from the first processor to the second processor (see figure 1, elements 26, 18, 30 of Musgrave);

Transferring to the second processor watermark removal data (see figure 1, element 24 of Musgrave);

Using the second processor to remove the watermark using the removal data (see figure 1, element 30 of Musgrave).

However, Musgrace does not specifically mention the security key which is associated with the invertible algorithm, neither does Musgrace specifically mention the material identifier.

ii. Milsted et al. disclose a method to package digital content for electronic distribution using the identity of the source content, wherein Milsted et al. disclose the security key and the associated invertible algorithm (see column 24, lines 16-20 of Milsted et al.), the material identifier (see abstract of Milsted et al.).

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Milsted et al. into the system of Musgrace to use a security key which is associated with the invertible algorithm, and use the material identifier.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Milsted et al. into the system of Musgrace to use a security key which is associated with the invertible algorithm, because the security key can be used to enhance the security, so that only the End-User Player Application 195 that is knowledgeable of the embedding algorithm and the associated scrambling key is able to read or modify the embedded data (see column 24, lines 16-20 of Milsted et al.).

The ordinary skilled person would have been motivated to have applied the teaching of Milsted et al. into the system of Musgrave to use the material identifier, because the material identifier facilitates identifying a material (see abstract of Milsted et al.).

Referring to claim 111:

Musgrave and Milsted et al. teach the claimed subject matter: a method for watermarking and transferring watermarked material (see claim 110 above). Musgrave further discloses the communication network in the system (see figure 1, element 18 of Musgrave).

Referring to claims 112-113:

Musgrave and Milsted et al. teach the claimed subject matter: a method for watermarking and transferring watermarked material (see claim 110 above). Milsted et al. further disclose the metadata is used (see column 60, lines 47 of Milsted et al.).

Referring to claims 114-116:

Musgrave and Milsted et al. teach the claimed subject matter: a method for watermarking and transferring watermarked material (see claim 110 above). Milsted et al. further disclose the financial rules and business rules (see column 62, lines 27-28; and column 61, lines 65-67 of Milsted et al.).

Referring to claim 117:

Musgrave and Milsted et al. teach the claimed subject matter: a method for watermarking and transferring watermarked material (see claim 110 above). Milsted et al. further disclose that the statistics data are kept for the transaction (see column 8, lines 48 of Milsted et al.).

10. Claims 67-69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gell (U.S. Patent No. 6,577,858) in view of Milsted et al. (U.S. Patent No. 6,345,256).

Referring to claims 67, 69:

i. Gell teaches:

A signal comprising several portions of data (see column 15, line 54-60 of Gell). Gell further discloses key and algorithm (see column 13, line 47; and

column 16, lines 11-12 of Gell). However, Gell does not specifically mention the key and the algorithm are associated with the watermark.

ii. Milsted et al. teach a system wherein the key and the algorithm are associated with the watermark.

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Milsted et al. into the system of Gell to use the key and algorithm for the watermark.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Milsted et al. into the system of Gell to use the key and algorithm for the watermark, because it's well known in the art that watermark can be used for copy protection.

Referring to claim 68:

Gell and Milsted e al. teaches the claimed subject matter: a signal comprising several portions of data (see claim 67 above). Milsted et al. further disclose a system wherein template is used to describe the required and optional information for building the offer, order, and license SC (see column 31, lines 55-57 of Milsted et al.).

11. Claims 41-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Musgrave (U.S. Patent No. 6,208,746) in view of Milsted et al. (U.S. Patent No. 6,345,256), and further in view of Yoshiura et al. (U.S. Patent No. 6,131,162).

Referring to claims 41-42:

i. Musgrave and Milsted et al. teach the claimed subject matter: a method for watermarking and transferring watermarked material (see claim 38 above). However, Musgrave does not specifically mention linking the first client, the second client with the transaction server.

ii. Yoshiura et at. disclose a system wherein the first client (vendor) links with the transaction server (mark manager) with the communication network to

register the watermark, and the second client (consumer) links with the transaction server to verify the watermark (see figure 14, elements 1110, 1120, 1100 of Yoshiura et al.).

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Yoshiura et al. into the system of Musgrave and Milsted et al. to provide a transaction server, and link the first client, the second client with the transaction server via a communication network.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Yoshiura et al. into the system of Musgrave and Milsted et al. to provide a transaction sever, and links the first client, the second client with the transaction server. The transaction sever is trusted by both the first client and the second client, therefore the transaction server is able to provide the functionality of validating the information published by the first client (vendor) when requested by the second client (consumer) (see column 7, lines 42-50 of Yohsiura et al.).

Response to Arguments

12. Applicant's arguments, filed on July 6, 2006, with respect to Musgrave does not disclose "applying identifying data to the material" and "transferring the removal data to the removal apparatus to allow removal of the perceivable watermark" (pages 5/6, Arguments/Remarks); Gell does not disclose the watermark removal data including a key and an invertible algorithm (page 8, Arguments/Remarks); "In Yoshiura, there is no key created which is associated with the invertible algorithm" (page 9, Arguments/Remarks), have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made.

Applicant argues:

"In any event, it is submitted that there is nowhere disclosed in any of the cited references of the claimed "recording/reproducing medium is a linear recording medium..." (page 15, Arguments/Remarks)

Examiner maintains:

Finkelstein et al. disclose that "PWM provides for higher linear recording densities than PPM. In pulse-width modulation the duration of a pulse recorded on a record track is varied for indicating different informational values." (column 1, lines 34-37 of Finkelstein et al.) Therefore, Finkelstein et al. disclose the linear recording medium.

Applicant argues:

""Furthermore, Applicants respectively submit that there is no disclosure or suggestion of the claimed "subject to predetermined conditions being satisfied, transferring from the transaction server to the second apparatus watermark removal data associated with said material identifier" in Yoshiura." (page 9, Arguments/Remarks)

Examiner maintains:

Yoshiura et al. disclose that "Information necessary to extract the information 2910, embedded as the digital watermark, from the extracted mark 2909 should be obtained in advance from the mark management server 1122 (for example, the original mark into which the watermark shown in step 2710 of FIG. 21 is not yet embedded, or information identifying algorithm to restore the information 2910 by using difference data between the original mark and the extracted mark 2909). To do so, the validity check program C is designed to send a validity check confirmation information request to the mark management server 1122 as requested by the consumer 1100, and store information received in response to the request in the memory 1204 or in the storage unit 1202. The mark management program C running on the mark management server 1122 is also designed to send the required information back to the consumer terminal 1101 in response to the validity check confirmation information request." (column 28, lines 29-45; and figure 22, element 2906 'extract the watermak' of Yoshiura et al.)

Yoshiura et al. further disclose that "checking, by said mark management server, upon receiving the mark-send request from said WWW server, if the WWW server satisfies a condition for acquiring the mark, and only when the condition is satisfied, updating said mark management DB, and then sending the requested mark back to the WWW server" (see claim 3 of Yoshiura et al.)

Therefore, Yoshiura et al. disclose "subject to predetermined conditions being satisfied, transferring from the transaction server to the second apparatus watermark removal data associated with said material identifier".

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office Action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Pan whose telephone number is 571-272-5987.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached at 571-272-3859. The fax and phone

numbers for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2100.

Joseph Pan
August 25, 2006

KIM VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100